



wellness activity guide

Unit 2: Physical Activity

ages

13-15

Oregon ASK
Afterschool & Summer for Kids Network



DANCES FROM AROUND THE WORLD

ACTIVITY DESCRIPTION: Let's learn about why dance is a great way to move our bodies.

Did you know? It ties together physical activity and culture and is part of many traditions. In terms of exercise, it is great to get your heart pumping, requires coordination and balance, and challenges your memory too. It's also a fun activity that you're more likely to do often which gives you even more of the benefits.

SUPPLIES:

- Internet connection

STEPS:

1. Ask the following questions and hold a discussion around them:
 - a. What are dances that you have heard of? What do you know about them?
 - b. What observations have you made about your body when you dance?
2. Watch [this video](#) that shows dances from all around the world:
3. Choose your favorite dance as it's playing (rewatch if necessary) and take note of the country it is from and its name.
4. Do an internet search of the dance and why it is important to the culture and what it means - when is it performed? Who performs it? What does it symbolize?
5. Learn one move from the dance and show it to your peers - why did you choose this one? Tell them about the skills required to perform the dance that you took away from trying to learn one of the moves.

HOW TO EXPAND:

- Think of a dance that you know of, either from your culture or someone close to you. How do these dances compare to the ones you watched in the video.

ADAPTATIONS/GOING VIRTUAL:

- Instead of showing the dance to your peers, show it to a family member and try to teach it to them

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DISCUSSION QUESTIONS:

- Why is dance an important form of exercise?
- Have you ever danced before or took dance classes? How did it make you feel and what is enjoyable about it?

HEART RATE

ACTIVITY DESCRIPTION: Let's learn about our heart rate, how to measure it, and what it tells us when we exercise.

Did you know? Our heart rate tells us how fast our heart is beating. When we exercise, our heart needs to work harder to deliver fresh oxygenated blood to our muscles, so our heart rate increases. However, our heart is working all the time because our organs need oxygen at all times, which is why our heart is always pumping. We can measure our heart rate to look at how quickly our heart is pumping which can help us determine how heart we are working.

SUPPLIES:

- Timer
- Internet Access
- Writing Utensil
- Journal
- Calculator

STEPS:

1. Take a minute to breathe and relax
2. On the thumb side of your wrist (in the area where you would wear a bracelet) lightly feel around with the other hand until you can feel your pulse. You can also do this on your carotid artery which is on your neck below the jaw line.
 - a. If you are having trouble go to [this website](#) from the Heart Foundation which provides more instructions and a video
3. Set a timer for 30 seconds and count the number of pulses you feel.
4. Write down that number then multiply it by 2 which will give you your heart rate in beats per minute – this is your resting heart rate (normally about 60–100 beats per minute).
5. Write a prediction about how your heart rate would respond if you did light exercise.
6. Now test that prediction by doing 2 minutes of light activity. For example: walking, very light jogging in place, etc.
7. Immediately after, repeat the steps above to find and calculate your pulse and write it down.
8. Next, do 2 minutes of hard activity. For example: running, jumping jacks, hopping, squatting.

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9. Immediately after, repeat the steps above to find and calculate your pulse and write it down.
10. Wait 2 minutes and breathe and relax then calculate your pulse one last time.
11. What did you notice about the changes in your pulse? Can you explain these and what was happening with your heart? Write your theories and discuss with the class.

HOW TO EXPAND:

- Compare your heart rate after different activities you do throughout the day.
- Learn about [maximum heart rate](#), and [target heart rate](#) in workouts with these videos.

ADAPTATIONS/GOING VIRTUAL:

This activity can be completed from home.

DISCUSSION QUESTIONS:

- What were the differences between your heart rate with rest, easy activity, and hard activity?
- After the hard activity, how did your heart rate change over time - why do you think this was happening?
- Why do you think it matters if a person has a high resting heart rate?
- Why do you think we check someone's pulse when we do first aid or CPR?

CONCENTRIC VS. ECCENTRIC MOVEMENT

ACTIVITY DESCRIPTION: Let's explore the different ways our muscles can move and what type of exercises are concentric and eccentric.

Did you know?

Concentric movements are those that shorten your muscles and increase the tension as the muscles contract. Great examples of this are a bicep curl, when you're bringing your arm up towards your shoulder, when during a pull up (the part where you pull up to the bar), and the upwards motion of a squat (it may seem counterintuitive that you're lengthening the muscle during this but think of how the muscle is contracting when you push up from a squat).

Eccentric movements lengthen the muscles during contraction and plays a very important role in strengthening muscles. Examples of this include bringing your arm back down during a bicep curl, lowering your body during a pull up or the downward motion of a squat.

SUPPLIES:

- Writing utensils
- Paper
- Internet Access

STEPS:

1. What do you think is the difference in feeling between a concentric movement and an eccentric movement?
2. Try the following exercises if you are able to do them and write down the differences in the concentric portion and the eccentric portion after each one that you do (you may have to do them multiple times to accurately observe and note the differences). Use [these images](#) to help you if needed.
 - a. Eccentric: Pushup position and lower down
Concentric: Push up from the ground into pushup
 - b. Eccentric: Bicep curl – take anything with some weight (water bottle is fine) and hold it in your hand and bend your arm with the weight towards your shoulder and extend your arm out straight
Concentric: Bicep curl – start with arm extended then bring the weight back up towards your shoulder by bending your arm

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- c. Eccentric: Squat – start standing and lower yourself into a squat
Concentric: Squat – start in a squat position then push back up to standing
- d. Eccentric: Push press – start with a light weighted object in your hand with your arm extended towards the ceiling, then bend your arm and lower it towards your shoulder
Concentric: Push press – start with a light weighted object in your hand with your arm bent and hand at shoulder height then push it up towards the ceiling
- e. Eccentric: Situp – Start sitting on the floor with your legs bent and feet on the floor then lower your back down to the ground
Concentric: Situp – Start laying on the floor with your knees bent and feet on the floor, using your core bring yourself up to a seated position

HOW TO EXPAND:

Watch [this video](#) about how your muscular system works and answer the following question: what does this show you about muscles? Are we just using them when we exercise? What muscles are you using right now?

ADAPTATIONS/GOING VIRTUAL:

This activity can be done from home.

DISCUSSION QUESTIONS:

- What do you notice about the exercises?
- What feels easier – concentric or eccentric? Do you notice any changes when you slow the exercises down?
- Reflect on your original hypothesis – were you correct in how you thought they would feel?

HOW DO MUSCLES GROW?

ACTIVITY DESCRIPTION: Let's explore how we can grow our muscles. We all know that with practice, we can get better at things we try. This also applies to our muscles. The more we use them, the more they can grow. This is not only important for our health, but feeling strong makes you feel better overall and getting stronger is a great goal to work towards.

Did you know? Every time we work our muscles in a harder way than we're used to, they get damaged (in a good way!). This damage sends out signals to our immune system to come and repair it. Over time this process of damaging and repairing our muscles is what causes them to grow. The repair process typically happens with rest which is why sleep is really important as well as having a healthy diet and eating enough protein. As our muscles get used to the load we are putting on them they become stronger and more used to it, so we need to keep increasing the difficulty if we want to keep growing our muscles. If we stop using them they start to shrink and break down.

SUPPLIES:

- Writing Utensil
- Journal

STEPS:

1. Reflect on a time you got stronger – how long did it take for you to feel a difference and for the activity you were doing to get easier (for example, when you played a certain sport, or when you were able to lift things that you couldn't lift when you were younger). If you can't think of an example for yourself think of someone you know or an athlete you like.
2. Think of a goal you want to reach in terms of muscle strength (for example – be able to do 10 pushups in a row)
3. Write yourself a 4 week plan where you progressively work towards your goal every day with rest at least once per week as well. For example, for the first week you do 3 pushups every day, then the second week you do 5, then 7, then 10.
4. Explain what you think will be happening in your body as you the weeks go by.
5. If you need help understanding what is happening in your muscles and how to get stronger watch the video in the expansion

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HOW TO EXPAND:

For a more in depth explanation of how our muscles grow watch [this video](#).

ADAPTATIONS/GOING VIRTUAL:

This activity can be completed from home

DISCUSSION QUESTIONS:

- What are other goals you could work towards?
- How do you think you will feel if you achieve them?
- What are the most important benefits to you of getting stronger?
- Why do you think good nutrition and rest are important for building muscle?

STRONG BONES

ACTIVITY DESCRIPTION: Did you know that bones are living tissue just like our biceps or our heart muscles? Like those muscles they can be strengthened through exercise that prevent them from becoming thin and brittle.

Did you know? To make our bones stronger we need to do exercises that make us work against gravity, like walking, jogging, jump roping, dancing, etc. Strength training is also a good way to make our bones strong. Low impact activities like swimming and biking are great for our health but aren't as good at making our bones stronger.

SUPPLIES:

- Pencil
- Paper
- Strong glue
- Dried pasta - one thin variety like spaghetti and one thick variety like penne
- An object with weight (ex: small book, bowl, etc.)

STEPS:

1. Cut the pasta strands so that they are the same length
2. Use the thin variety of pasta along with glue to build a structure to hold up the object you chose. You may have to wait some time to let it dry. This pasta represents normal bone. Write your observations and experiences with this.
3. Now take the thicker variety of pasta which represents bone that has been strengthened with exercise - how do you think it will be building a structure with this variety? Write your hypothesis
4. Use the thick variety along with glue to build another structure this time. Let it dry and then test how it holds up the object - what are your observations? Do they line up with what you thought would happen?

HOW TO EXPAND:

Watch [this video](#) about strengthening your bones - along with exercise what are other ways you can strengthen your bones? Do you do any of these already?

ADAPTATIONS/GOING VIRTUAL: This activity can be completed from home with commonly found kitchen and household items.

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DISCUSSION QUESTIONS:

- Why do you think having strong bones is important?
- When your bones get too thin and brittle this is called osteoporosis - what do you think the consequences of this could be?
- What are exercises you already do that strengthen your bones? Which do you think you could add?

ALL ABOUT JOINTS

ACTIVITY DESCRIPTION: Joints are what allow our body to move! As the name suggests, this is where bones of the body come together. There are joints throughout our body but here we'll focus on the ones that allow us a lot of movement - **synovial joints**. Examples of these joints are the shoulder, wrist, fingers, elbows, knees, upper neck, ankles and hips. These joints have different components including tissues and fluid that allow them to move freely without too much friction (that would hurt!).

To keep your joints healthy it's important to maintain a healthy weight, eat well, stay hydrated, exercise and stretch. All of this makes sure that joints can function properly and smoothly and can help prevent injury to them as well.

SUPPLIES:

- Playdough (or clay or putty or you can make your own see extension)
- Sticks or anything long and straight to act as a bone - crayons, pencils, straws, uncooked pasta, toothpicks, etc)
- Writing utensils
- Paper

STEPS:

1. Spend a few moments moving your body around and observe the different ways your joints allow you to move
2. Choose 3 joints to replicate using playdough
3. Using the playdough as the tissues and fluid that help the joint glide around, take 2 "bones" and put them together to make each of the three joints.
4. Move your body then replicate the movement in the joint you made to observe all the different ways the joint has to move
5. Write down the movements you notice and brainstorm some activities that the joint allows you to do.
6. Hypothesize: what would happen if the joints you picked became solid and could no longer move - what do you think would happen?
7. Try to move your body as you were before but for each joint see what it's like to move if it's locked.
8. What did you observe?

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HOW TO EXPAND:

For a more detailed explanation of the types of joints watch [this video](#).

For a [video](#) on how to make your own playdough.

ADAPTATIONS/GOING VIRTUAL:

This activity can be completed at home with kitchen and household supplies.

DISCUSSION QUESTIONS:

- Why is keeping our joints healthy important?
- Why do you think being hydrated is good for our joints?
- Have you or anyone in your family experienced a joint injury? What was that like? (For example: dislocated elbow or shoulder, torn meniscus, etc.)
- What joints do you use the most?

BREATHING

ACTIVITY DESCRIPTION: Breathing is how we get oxygen into our lungs which we need for all our cells to work. When we work harder, like we do during exercise, our body needs more oxygen so our breathing changes to allow us to get more oxygen. Let's observe how our breathing changes during exercise and how this makes us feel.

Did you know?

Our **breathing rate** is how many breaths we take per minute.

Our **tidal volume** is how much we breathe in each breath.

SUPPLIES:

- Balloons
- Timer
- Writing utensils
- Paper

STEPS:

1. How do you think your breathing rate and tidal volume (amount of air you breathe in per breath) will change as you go from rest, to light activity, to hard activity? Write out your hypothesis.
2. Calculate your breathing rate by counting how many breaths you take in 30 seconds then multiplying it by 2 to get the number of breaths per minute (the average for people is about 12). You can have a friend help you and count for you to make it easier. Blow up a balloon approximating how much air you breathed in at rest (tidal volume).
3. Do a light activity that gets you moving but isn't hard for about 2 minutes then calculate your breathing rate. Blow up another balloon to show how much you think your tidal volume was compared to at rest.
4. Do a hard activity (one that gets your sweating a bit) for 2 minutes then calculate your breathing rate. Blow up another balloon to show how much you think your today volume was compared to rest and light activity.
5. Look back at your hypothesis; how do you think our breathing rate and tidal volume changes with exercise?

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HOW TO EXPAND:

- For 15 seconds, try to breathe in quick but very shallow breaths (not breathing in all the way) – what happens and how do you feel? What does this tell you about the importance of tidal volume?
- You can make your body feel more calm and relaxed through controlled breathing. Take 10 slow deep breaths – how does this make your body feel compared to before?
- Watch [this video](#) about breathing exercises to alleviate anxiety and stress:
- Watch [this video](#) about how lungs work
Can you draw a detailed picture of your lungs?

ADAPTATIONS/GOING VIRTUAL: This activity can be completed from home.

DISCUSSION QUESTIONS:

- Why are breathing rate and tidal volume both important for getting oxygen into our lungs?
- Why do you think our breathing changes with exercise?
- Do we have to think about breathing or does it happen automatically? Why do you think so?

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HEART RATE

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HOW DO MUSCLES GROW?

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STRONG BONES

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ALL ABOUT JOINTS

1. <https://kidshealth.org/en/parents/bones-muscles-joints.html>
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BREATHING

1. <https://kidshealth.org/en/kids/lungs.html>